

CLAIM AMENDMENTS

1-115. (canceled)

116. (currently amended): A method of silencing a ~~target~~-gene in the cell by post-transcriptional gene silencing (PTGS) which method comprises introducing into said cell short RNA molecules (SRMs) ~~sequences of about 20-30 nucleotides complementary to a region of a target gene which is silenced when said short RNA molecules are present in a cell containing said target gene,~~

which SRMs comprise equimolar amounts of isolated short sense RNA molecules (SSRMs) and isolated short antisense RNA molecules (SARMs); ~~[[and]]~~

wherein said SARMs are complementary to a region of a target RNA transcribed from a gene which is silenced when said short RNA molecules are present in a cell containing said gene and said SSRMs correspond to said target RNA; and

wherein the nucleotide sequences of the SSRMs and SARMs consist of ~~[[about]]~~ 20-30 nucleotides,

whereby said gene is silenced.

117. (previously presented): The method of claim 116, wherein the cells are contained in said organism and said introducing comprises administering said SRMs to the organism.

118. (previously presented): The method of claim 116, wherein the SRMs are synthetic.

119. (currently amended): The method of claim 116, wherein the ~~SRMs~~ SARMs have a structure complementary to a target mRNA transcribed from a gene endogenous to an organism selected from the group consisting of a plant, a mammal, an avian organism, a reptile, an insect, a protozoan, and a nematode.

120. (currently amended): A method of silencing a ~~target~~-gene in the cell of an organism by post-transcriptional gene silencing (PTGS) which method comprises introducing into said cell a composition comprising isolated short antisense RNA molecules (SARMs) and isolated ~~corresponding~~ short sense RNA molecules (SSRMs) corresponding to a target RNA transcribed

from said gene, the nucleotide sequences of which consist of 20-30 nucleotides and wherein said SARMs can base pair with [[a]] said target RNA.

121. (previously presented): The method of claim 120, wherein said SARMs and SSRMs are present at equal abundance.

122. (previously presented): The method of claim 120, wherein the cells are contained in an organism and said introducing comprises administering said SSRMs and SARMs to the organism.

123. (previously presented): The method of claim 120, wherein the SSRMs and SARMs are synthetic.

124. (currently amended): The method of claim 120, wherein the ~~SSRMs and~~ SARMs have a ~~structure complementary~~ sequence that can base pair to a target mRNA transcribed from a gene endogenous to an organism selected~~[[.]]~~ from the group consisting of a plant, a mammal, an avian organism, a reptile, an insect, a protozoan, and a nematode.